DOCUMENT RESUME

ED 439 530 EA 030 382

AUTHOR Ricciardi, Diane
TITLE Examining Professional Training of Middle Level Principals: Responding to a Reform Environment.
PUB DATE 1999-04-00
NOTE 24p.; Paper presented at the Annual Meeting of the American Educational Research Association (Montreal, Quebec, Canada, April 19-23, 1999).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Educational Change; *Middle Schools; *Needs Assessment; *Principals; *Professional Development
IDENTIFIERS *National Policy Board for Educ Administration

ABSTRACT

The study examines the impact of selected variables on the professional development needs of 52 middle level principals, involved in implementing reform initiatives in their schools. Training needs were examined using the framework of the 21 performance domains judged by the National Policy Board for Educational Administration as critical for administrative job success. Two independent variables--years working in education, and gender--were identified as significant predictors of development needs. Although principals generally rated professional development activities as useful to their job performance, they indicated that the content of development activities was not balanced among the 21 performance domains. Principals recommended improving content and delivery of future development activities by incorporating the principles of adult learning theory into training activities. They reported top development needs in curriculum, instruction, and public relations. (Contains 31 references.) (Author/DFR)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 439 530

Examining Professional Training of Middle Level Principals: Responding to a Reform Environment

Diane Ricciardi

Department of Administration and Higher Education

University of Louisville

dianer@louisville.edu

A paper presented at the Annual Meeting of the American Educational Research Association, April 19-23, 1999, Montreal, Canada.

EA 030 314

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

D. Ricciardi

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Abstract

The purpose of the study was to examine the impact of selected variables on the professional development needs of experienced middle level principals (n = 52) who were involved in implementing reform initiatives in their schools. Training needs were examined using the framework of the 21 performance domains judged by the National Policy Board for Educational Administration (NPBEA) as critical for administrative job success. Multiple regression analyses revealed that two independent variables (a) years working in education and (b) gender were identified as significant predictors of development needs. Although principals generally rated professional development activities as useful to their job performance, they indicated that the content of development activities was not balanced among the 21 performance domains. Principals provided recommendations for improving the content and delivery of future development activities by incorporating the principles of adult learning theory into training activities. Principals reported top develop needs in areas of curriculum, instruction, and public relations. Results supported work of the NPBEA that contended that professional development should build principals' capacity for improving K-12 student achievement.

Identifying the Development Needs of Middle Level Principals: Responding to a Reform Environment

School reform issues of "turf, tension, and new tasks" (Lieberman, 1988) characterize the role of middle level principals. Although the middle school model was designed to remedy limitations of the traditional junior high school (Raebeck, 1992), middle level teachers and administrators face enormous challenges. The changing nature of schooling has reshaped the role of middle school administrators. State policies mandate that *all* students achieve at higher levels. New governance models accord decentralized power to teams and site councils, as the scope of school leadership and decision-making expands beyond the principal (Alexander, 1986).

The transition to educational practices designed for early adolescents continues to be at the heart of middle level reform (Epstein & Mac Iver, 1990; National Middle School Association (NMSA), 1995). So far, the transition has been marked by successes, setbacks, and gradual progress, paralleling the general restructuring trends of elementary and secondary schools (Valentine, Trimble, & Whitaker, 1997). In a recent longitudinal study, the Carnegie Council on Adolescent Development (1996) reported that middle schools continue to fall short of meeting educational, health, and social needs of many adolescents. Administrators struggle to tailor curricula and pedagogy to fit the academic and personal needs of early adolescents (Lipsitz, Jackson, & Austin, 1997). This changing role of middle level leaders brings increased attention to the preparation and development of principals.

The systematic study of middle level administrator preparation is limited. Studies have examined specialization needed by middle level educators, but most research has focused on teacher training (Alexander & McEwin, 1988; Carnegie Council, 1989; Orlosky, 1988). Rarely have studies explored competencies needed by middle level leaders. Some research indicates that

fundamental changes are needed in the leadership processes used by middle level principals (Felner, et al., 1997).

Several reasons may explain the absence of research on middle level administrator preparation. Preparation programs for middle level educators have not increased proportionately with the growth of middle level schools (McEwin & Allen, 1985; McEwin & Dickinson, 1995). The addition of university preparation programs for middle level teachers or administrators has been slow-- only 5% a year from 1973-1986 (NMSA, 1986). Generally, middle school administrators were prepared as elementary or secondary certified teachers. Middle level leadership preparation programs are neither available to many aspiring administrators nor standardized in program content. As states face shortages of K-12 principals, one state recently discontinued middle level principal certification and instead offers a generic K-12 principal certification program at its state universities. Logically, middle level leadership programs may be impacted negatively by administrator hiring trends and changes in state certification requirements.

The extensive body of research on K-12 principals speaks to many issues relevant to middle level administrators. Nationally, much attention focuses on reforming principal preparation and development programs. Leithwood, Begley, and Cousins (1992) contend:

> If education, in general, and schools, in particular, are seen as tools for social change, educational leaders are assumed to be among the most critical artisans. Developing school-leaders, therefore, is one of the most promising avenues available for successfully addressing the changes which will challenge future schools. (p. 6)

Numerous commission reports and studies (National Policy Board for Educational Administration (NPBEA), 1990; National Association of Secondary School Principals (NASSP), 1992; Council of Chief State School Officers (CCSSO), 1997) document the shortcomings of administrator

preparation. The National Commission on Excellence in Educational Administration (NCEEA) (1987), disclosed in its prominent report, that administrator preparation programs lack rigor, coherence, and high standards of quality. NCEEA noted the weak collaboration between universities and practitioners, which results in a disconnect between theory, research, and practice, and does little to foster proactive recruitment of administrators who possess exceptional leadership potential. Generally, preparation programs have not addressed the scope of administrators' responsibilities for producing substantive school improvement.

Recent work of the NPBEA (1990) and the CCSSO (1997) is impacting administrator preparation. Using a job analysis of the principalship, the NPBEA proposed a framework for training principals. The model was based on a set of 21 job performance domains (see Table 1), all considered as essential for principals' job success. Work of the CCSSO has lead to the adoption of comprehensive standards for principals' job performance and a new licensure test for administrators.

Professional groups contend that high-quality professional training and development should extend seamlessly through each principal's career (NASSP, 1992). Daresh and Playko (1992) reported that limited research addresses professional development of principals. Studies generally focus on aspiring principals and those recently hired into positions (Erlandson, 1994). On-going development for experienced principals appears to be the most neglected, least developed component of principal preparation.

Additionally, principals' professional development programs have not been grounded in adult learning theory (Pitner, 1982). Learning theorists contend that adults need training experiences that are relevant to the workplace, offer a variety of delivery approaches, and provide multiple opportunities for self-directed learning (Knowles, 1988). Few researchers have examined

the relationship between the professional development process and learning needs of individual principals (Daresh & Playko, 1992). As middle level leaders face current challenges, attention to their on-going professional development is timely.

Purpose and Research Questions

The purpose of this study was to examine the impact of selected variables on the professional development needs of experienced principals from a southeastern state heavily involved in middle school reform. Development needs, participation in and ratings of development activities, and recommendations for improving professional development were examined. The study addressed several questions:

1. What are the professional development needs of middle school principals?
2. How do needs vary according to principals' demographic characteristics: (a) years working as a principal, (b) years working in education, (c) formal educational level, (d) gender, and (e) school work location?
3. What development activities do principals participate in, and how do they rate these activities?
4. What recommendations do principals make to increase the usefulness of professional development activities?

Research Methodology

Population and Sample

The population (N= 135) consisted of experienced middle level principals listed in the Basic Educational Data System compiled by the State Department of Education. All principals lead schools containing grades 6-8. A stratified sample by gender (n = 52) was drawn using a

table of random numbers. Of the sample, 28% were female, representing the same percentage of female middle school principals in the state.

Instrumentation

A survey, designed by the researcher, was used to collect data about the development needs of middle school principals. The study used the 21 job performance domains developed by the NPBEA (1990) as a framework for analysis of development needs. The Executive Director of the NPBEA reviewed the instrument after its development and provided minor suggestions for rewording two domain descriptors to keep them consistent with the intent of the NPBEA. Next, the instrument was pilot tested for content validity. A group of middle school principals (N = 10) completed the survey and provided feedback about survey format and item content. Minor recommendations were used to clarify the wording of survey instructions. Pilot participants also indicated if the domains were relevant or irrelevant to their own job performance as middle school principals. All participants rated all domain areas as relevant to their work.

The NPBEA performance domains are based on research by leading organizations who have worked to improve educational leadership preparation during this decade. The domains are grounded in results from detailed job analyses examining the work of over 10,000 school administrators. This present study utilized the NPBEA domains as indicators of professional development need. Ratings of need were analyzed using four content domain categories established by the NPBEA. The functional domains deal with administrative processes and techniques that allow the school to function. The programmatic domains relate to the core technologies of curriculum and instruction and the school services that support student learning. The interpersonal domains deal with the value of human relationships and communication within schools. The contextual domains relate to the cultural, economic, and political influences

surrounding schools. For this study, internal consistency reliability was estimated by computing alpha coefficients for each of the four content domain categories used to rate professional development need. These coefficients ranged from .92 to .94, indicating the survey instrument had an acceptable level of internal consistency above the minimum (.70) recommended by Nunnally (1978) for use of composite scores in statistical analysis.

The first part of the survey elicited information about the independent variables pertaining to participants' demographic characteristics. The second part consisted of 21 items which asked participants to rate their perceived level of professional development need in each job performance domain using four-point Likert-type scales (1 = Not a Need to 4 = Extremely Important Need). A higher rating indicated a greater perceived level of development need in each of the 21 job performance domains. On the third part of the survey respondents were asked to list all professional development activities that they had participated in during the last two years and to rate the usefulness of each activity on four-point Likert-type scales (1 = Not Useful to 4 = Extremely Useful). In the final section, an open-ended question was used to collect participants' recommendations for improving future development activities.

Data Collection

The questionnaire, a cover letter assuring anonymity, and a self-addressed envelope were mailed to the 52 principals during the fall semester. Surveys were coded to maintain confidentiality of participants and to allow a follow-up mailing to non-respondents. An initial mailing and one follow-up mailing yielded an 83% ($n = 43$) response rate, exceeding the minimum rate of 70% suggested as adequate for analysis reporting (Babbie, 1990). Of the respondents, 33% were female. Participants averaged working 22.2 years in public education and 8.5 years as middle level principals. Approximately 72% of participants had worked as assistant principals

prior to becoming principals. The demographic characteristics of the sample closely mirrored national characteristics of principals (Doud & Keller, 1998).

Analysis of Data

Once received, quantitative data were processed using SPSS / PC+. Stepwise Regression Analyses were performed to identify the relationship between demographic variables and principals' development needs in the four content domain categories. Frequencies and percentages were calculated for the demographic information and to answer questions about development needs, participation, and ratings of usefulness. A content analysis was used to categorize participants' recommendations for improving development activities. Two independent researchers verified the accuracy of the qualitative analyses by replicating the process. From their analyses, the researcher and the two independent reviewers similarly categorized 95% of participants' recommendations. No data were deleted from analysis since all recommendations were categorized similarly by at least the researcher and one additional reviewer.

Results

Professional Development Needs

Participants reported their greatest development needs in the specific performance areas of (a) Curriculum Design, (b) Public and Media Relations and (c) Instruction and the Learning Environment. (See Table 1.) Principals indicated other top development needs in the areas of (a) Motivating Others, (b) Problem Analysis, (c) Measurement and Evaluation, (d) Staff Development, and (e) Legal and Regulatory Applications. Areas of development needs represented the complex and integrated skills needed by middle school principals. Participants' ratings of the 21 development needs appear in Table 1 in rank order according to mean score.

Insert Table 1

About Here

Relationship of Development Needs and Demographic Characteristics

Next, the independent variables (i.e., participants' years working in education, years working as a principal, formal educational level, gender, and school work location) were examined as possible predictors of development needs in the four content domain categories: (a) functional, (b) programmatic, (c) interpersonal, and (d) contextual. Additive composite scores from items in each of these content domain categories were calculated for use as dependent variables. Using Stepwise Multiple Regression Analyses, the independent variables were regressed on each of these four composite scores. Two independent variables (a) years working in education (r = -.336) and (b) gender (r = .322) had a significant impact on development needs.

The number of years working in education was a significant predictor of the composite rating for development need in the contextual domain (R^2 = .113, $p < .05$). When controlling for other variables, the relationship between number of years working in education and the dependent variable was negative (β = -.206), indicating that principals with more years work experience perceived less need for development in the contextual domain than did principals with fewer years experience.

Additionally, results indicated that gender was a significant predictor of the composite rating for development need in the contextual domains (R^2 = .112, $p < .05$). When controlling for other variables, the relationship between gender and the dependent variable was positive

($\beta = 2.432$), indicating that female principals perceived more need for development in the contextual domain than did male principals.

The R-squared of the two significant factors explained almost equal proportion of the variance accounted for by the predictor variables on the dependent variable of contextual development need. As indicated by the computed R-squared (See Table 2), the two significant factors explained 22.5 percent of the variance in this development need. No other relationships between independent variables and other dependent variables of functional, programmatic, or interpersonal development needs met the .05 level of significance.

Insert Table 2

About Here

Participation In and Usefulness of Development Activities

Principals reported participation in and ratings of usefulness for a total of 172 discrete development activities. The development activities were categorized into content areas using the NPBEA 21 performance domains. (See Table 1.) The areas with the greatest levels of participation were: (a) Instruction and the Learning Environment,
(b) Leadership, (c) Legal and Regulatory Applications, and (d) Curriculum Design. When comparing principals' reported development needs and their participation in development activities, *Instruction and the Learning Environment* was the greatest area of participation and the third greatest area of development need. Participants seemed to give priority to this development need and apparently sought out development activities in this area.

Participants reported other top areas of development need in (a) Public and Media Relationships, (b) Motivating Others, and (c) Problem Analysis; however, they reported low participation in these areas. Only 10 (6%) of the 172 development activities attended by participants dealt with *Motivating Others*, and none of the activities attended dealt with *Public and Media Relationships* or *Problem Analysis*. Low participation may indicate that development activities in these areas were either unavailable or offered at inconvenient times or locations. Noticeably, the area of *Public and Media Relationships* was the second greatest area of reported need; however, no principals reported participating in any development activities that addressed this area. Data suggest that this development need was unmet for the participants.

Overall, principals reported extremely low participation in development activities that addressed 10 of the 21 domain categories. Additionally, participants reported attending no development activities in the areas of: (a) Information Collection, (b) Oral and Nonverbal Expression, (c) Written Expression, (d) Philosophical and Cultural Values, (e) Policy and Political Influences, (f) Judgment, (g) Implementation, and (h) Delegation. The low participation indicated that principals had not been exposed to areas balanced across the NPBEA's 21 performance domains or simply had not participated in development activities when activities were offered.

Principals rated their participation in 77% of all development activities as useful, rating (a) Instruction and the Learning Environment, (b) Leadership, (c) Legal and Regulatory Application, and (d) Curriculum Design as training most useful for their job performance. Table 3 presents the frequencies of participation in development activities and ratings of activity usefulness.

Insert Table 3

About Here

Recommendations for Improving Future Development Activities

Participants responded to the open-ended question, "What would make professional development activities more relevant and useful to you in your job as a principal?" Participants provided 39 discrete recommendations for improving future development activities. Recommendations were categorized into two areas: a) recommendations about the professional content learned during development activities and b) recommendations about the delivery of development activities. Nearly 66% of recommendations dealt with improving the content of professional development activities. Participants wanted development activities that address their individual and school needs, as they wrote:

> Time needs to be spent on closely matching professional training to my deficiencies and those of my school. Most development activities are mandated and are often irrelevant to my needs.

> Specifically, I want more training about effective middle school practices. Training that is aligned with our population of teachers and students would be helpful. I think my professional development activities should be tied at least in part to my formal evaluation. If this happened, I could focus my attention on what helps me to improve my job performance.

Participants also wanted to improve professional development by enriching the content learned from development activities. Participants wrote:

I'd like series of training activities that build on each other. Content that is deep, that would guarantee that I learned a topic thoroughly enough to put it into practice in my school.

We need more intensive, long-term training. Let's avoid those short one-shot sessions that we usually have. I want support after training from someone who can give me constructive feedback as I implement school innovations.

Thirty-three percent of recommendations addressed the delivery of professional development activities. Participants recommended that activities be offered at flexible times that fit with principals' work demands, utilize expertise of peer principals as trainers, and vary the pedagogical format for delivering development activities. Participants wrote:

I'd like to have more opportunities to develop myself during the summer. I want training activities presented by others who have first-hand experience in doing what I am trying to accomplish in my school.

As principals we are charged with helping others be innovative-- to try new techniques. But we are the worst at doing the "same old, same old", especially in professional development. The biggest difficulty that I have found with principal training is that too many presenters lecture. We need exemplary training models for ourselves.

Recommendations appeared to be realistic and reflective of principals' desires to select development activities that are highly individualized, content-rich, and varied in types of delivery.

Conclusion

Several limitations of the study apply. Due to the self-reporting nature of the questionnaire, data concerning development needs may have differed if data were collected from actual job observations of principals or from formal evaluations provided by principals' supervisors. With the sensitive and confidential nature of job evaluation data, formal performance evaluation reports were not used. Also, results may have varied if the sample had been drawn from administrators not involved in middle level reform initiatives. Despite limitations, the study provides findings that may be used to improve training for middle school administrators.

From this study, the top development needs, a) Curriculum Design and b) Instruction and the Learning Environment, were two areas determined by the NPBEA to be the most important domains for improving K-12 student achievement in schools. Clearly, middle level principals face public concerns over students' low achievement on high-profile tests like the National Assessment of Educational Progress (Southern Regional Education Board, 1998). Study results reflect the priority that principals in this sample gave in understanding middle level reform strategies for improving student learning. The study suggests that development activities that substantively increase principals' competencies in curriculum and instruction be developed, evaluated, and made available to principals. Since many educators have limited preservice preparation in middle level curriculum and pedagogy (McEwin & Clay, 1982; Carnegie Council on Adolescent Development, 1989) this study suggests that principals may realize the shortcomings of their own preservice preparation as they attempt to implement reform strategies that target student achievement.

Noticeably in the study, *Public and Media Relationships* was the second greatest development need, yet participants reported no participation in this area. This development need reflects the increased demands on principals to market schools and to respond to individual and

media requests for public information about schools. Results suggest that this area of development need was unmet for participants in this study. Although principals indicated that development activities were useful to them, they reported an imbalance in development activities across the 21 domains. District and state department personnel should analyze both content of development activities and principals' access to activities.

Findings support the assumption that in the complex nature of the principalship, many interwoven factors may impact the knowledge and skills needed by administrators. With a large number of first-year administrators filling positions vacated by retirement and with the growing number of women principals (Doud & Keller, 1998), more development opportunities to address the contextual nature of schools may be needed. A lack of prior leadership experience may cause some individuals to need more training in dealing with political and economic influences that challenge them once they are appointed to principalships. The Interstate School Leaders Licensure Consortium (ISLLC) standards address the importance of administrative competence in managing political, cultural, and economic influences on schools. Professors, school district personnel, and others who train principals may wish to analyze the content of professional development activities and to expand offerings so that the contextual domain is addressed earlier in preparation programs. As universities align programs to ISLLC standards and as new principals face the standards-based licensure test, attention given to developing knowledge in the contextual domain may increase. Additionally, further research may be needed to examine if other variables about principals or schools may impact principals' development needs.

Finally, staff developers should apply principles of adult learning theory to professional development activities for school administrators. Results support the works of theorists (Knowles, 1988; Rogers, 1980) who found that adults have highly individualized learning needs and desire

problem-oriented activities that are relevant to the workplace. This study suggests that unique needs of principals and schools should be considered as professional development content and delivery are planned.

References

Alexander, L. (1986). Time for results: An overview. Phi Delta Kappan, 68, 202-204.

Alexander, W., & McEwin, C. K. (1988). Preparing to teach at the middle level. Columbus, OH: National Middle School Association.

Babbie, E. (1990). Survey research methods. Belmont, CA: Wadsworth Publishing.

Carnegie Council on Adolescent Development (1989). Turning points: Preparing American youth for the 21st century. Washington, DC: New York: Author.

Carnegie Council on Adolescent Development (1996). Great transitions: Preparing adolescents for a new century. New York: Author.

Council of Chief State School Officers (1997). Using ISLLC standards to strengthen preparation programs in school administration. Washington: Council of Chief State School Officers.

Daresh, J. C., & Playko, M. A. (1992). The professional development of school administrators: Preservice, induction, and inservice applications. Boston: Allyn and Bacon.

Doud, J., & Keller, E. P. (1998). The K-8 principal in 1998. Alexandria, VA: National Association of Elementary School Principals.

Epstein, J. L., & Mac Iver, D. (1990). Education in the middle grades: Overview of national practices and trends. Columbus, OH: National Middle School Association.

Erlandson, D. A. (1994). Building a career: Fulfilling the lifetime professional needs of principals. Fairfax, VA: National Policy Board for Educational Administration.

Felner, R. D., Jackson, A. W., Kasak, D., Mulhall, P., Brand, S., & Flowers, N. (1997). The impact of school reform for the middle years: Longitudinal study of a network engaged in Turning Points- based comprehensive school transformation. Phi Delta Kappan, 78, 528-550.

Knowles, M. (1988). The modern practice of adult education: From pedagogy to andragogy. Cambridge, MA: The Adult Education Company.

Leithwood, K. A., Begley, P. T., & Cousins, J. B. (1992). Developing expert leadership for future schools. Washington, DC: Falmer.

Lieberman A. (Ed.) (1988). The work of restructuring schools: Building from the ground up. New York: Teachers College Press.

Lipsitz, J., Jackson, A. W., & Austin, L. M. (1997). What works in middle grades school reform. Phi Delta Kappan, 78, 517-19.

McEwin, C. K., & Allen, M. G. (1985). Moving toward middle level teacher certification. Middle School Journal, 16, 18-20.

McEwin, C. K., & Clay, R. (1982). A national comparative study of middle and junior high school programs and practices. Boone, NC: Appalachian State University.

McEwin, C. K., & Dickinson, T. S. (1995). The professional preparation of middle level teachers: Profiles of successful programs. Columbus, OH: National Middle School Association.

Minium, E. W. (1978). Statistical reasoning in psychology and education. New York: John Wiley & Sons.

National Association of Secondary School Principals (1992). Developing school leaders: A call for collaboration. Reston, VA: National Association of Secondary School Principals.

National Commission on Excellence in Educational Administration (1987). Leaders for America's schools. Tempe, AZ: University Council for Educational Administration.

National Middle School Association (1995). This we believe: Developmentally responsive middle level schools. Columbus, OH: Author.

National Middle School Association (1986). Professional certification and preparation for middle level: A position paper. Columbus, OH: Author.

National Policy Board for Educational Administration (1990). Principals for our changing schools: Preparation and certification. Fairfax, VA: Author.

Nunnally, J. C. (1978). Psychometric theory. New York: McGraw-Hill.

Orlosky, D. E. (1988). Society, schools, and teacher preparation: A report of the Commission on the Future Education of Teachers. Washington, DC: ERIC Clearinghouse on Teacher Education.

Pitner, N. J. (1982). Training of the school administrator: State of the art. Eugene, OR: Center for Educational Policy and Management, University of Oregon.

Raebeck, B. (1992). Transforming middle schools: A guide to whole-school change. Lancaster, PA: Technomic Publishing Company, Inc.

Rogers, C. R. (1980). A way of being. Boston: Houghton Mifflin.

Southern Regional Educational Board (1998). Education's weak link: Student performance in the middle grades. Atlanta, GA: Author.

Valentine, J., Trimble, S., & Whitaker, T. (1997). The middle level principalship. In J. L. Irvin (Ed.), What current research says to the middle level practitioner (pp.337-347). Columbus,OH: National Middle School Association.

Table 1

Rank Order by Mean Score for Importance of Professional Development Needs

Development Need Areas	M	SD
Curriculum Design	3.09	.87
Public and Media Relationships	3.08	.92
Instruction and the Learning Environment	3.05	1.05
Motivating Others	3.01	.95
Problem Analysis	2.98	1.03
Measurement and Evaluation	2.95	.82
Staff Development	2.91	1.13
Legal and Regulatory Applications	2.86	.92
Resource Allocation	2.85	1.01
Sensitivity	2.84	1.07
Oral and Nonverbal Expression	2.79	1.01
Policy and Political Influences	2.77	.97
Written Expression	2.76	1.02
Leadership	2.74	1.11
Delegation	2.74	1.04
Organizational Oversight	2.73	1.02
Implementation	2.72	.98
Information Collection	2.71	1.03
Judgment	2.69	1.10
Student Guidance and Development	2.67	.99
Philosophical and Cultural Values	2.56	1.03

Table 2

Multiple Regression of Predictor Variables on Development Need in the Contextual Domain

Predictor Variables	Beta Coefficient	t Value
Years Working in Education	-.336	-2.499*
Years Working as a Principal	.147	.875
Level of Formal Education	-.019	.894
Gender	.335	2.402*
School Location	.102	.709

R-Squared = .225 [F (1, 40) = 5.769, p < .05]

N = 43

* p < .05

Table 3

Percentages of Participation in Development Activities by Categories and Levels of Usefulness

Development Categories	Total Activities %	Not Useful %	Mildly Useful %	Useful %	Extremely Useful %
Instruction and the Learning Environment	43 (25%)	1 (2%)	4 (9%)	15 (35%)	23 (54%)
Leadership	24 (14%)	0 (0%)	5 (21%)	9 (37%)	10 (42%)
Legal and Regulatory Applications	22 (13%)	0 (0%)	0 (0%)	11 (50%)	11 (50%)
Curriculum Design	16 (9%)	0 (0%)	2 (13%)	5 (31%)	9 (56%)
Student Guidance and Development	14 (8%)	0 (0%)	2 (14%)	5 (36%)	7 (50%)
Sensitivity	14 (8%)	0 (0%)	2 (14%)	5 (36%)	7 (50%)
Organization Oversight	12 (7%)	0 (0%)	1 (8%)	8 (67%)	3 (25%)
Motivating Others	10 (6%)	0 (0%)	0 (0%)	4 (40%)	6 (60%)
Measurement and Evaluation	9 (5%)	0 (0%)	2 (22%)	5 (56%)	2 (22%)
Staff Development	5 (3%)	0 (0%)	0 (0%)	4 (80%)	1 (20%)
Resource Allocation	3 (2%)	0 (0%)	0 (0%)	2 (67%)	1 (33%)
Total	172 (100%)	1 (<1%)	18 (12%)	73 (42%)	80 (46%)

Note. All development categories that correspond to percents that were <1 were omitted.